

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: INVUE

Report Number: P401206

Luminaire Tested: **ENV-SA1B-827-U-SLR**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401206
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-9)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1B-827-U-SLR
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 2700K, 450mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR RIGHT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2228 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 25.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

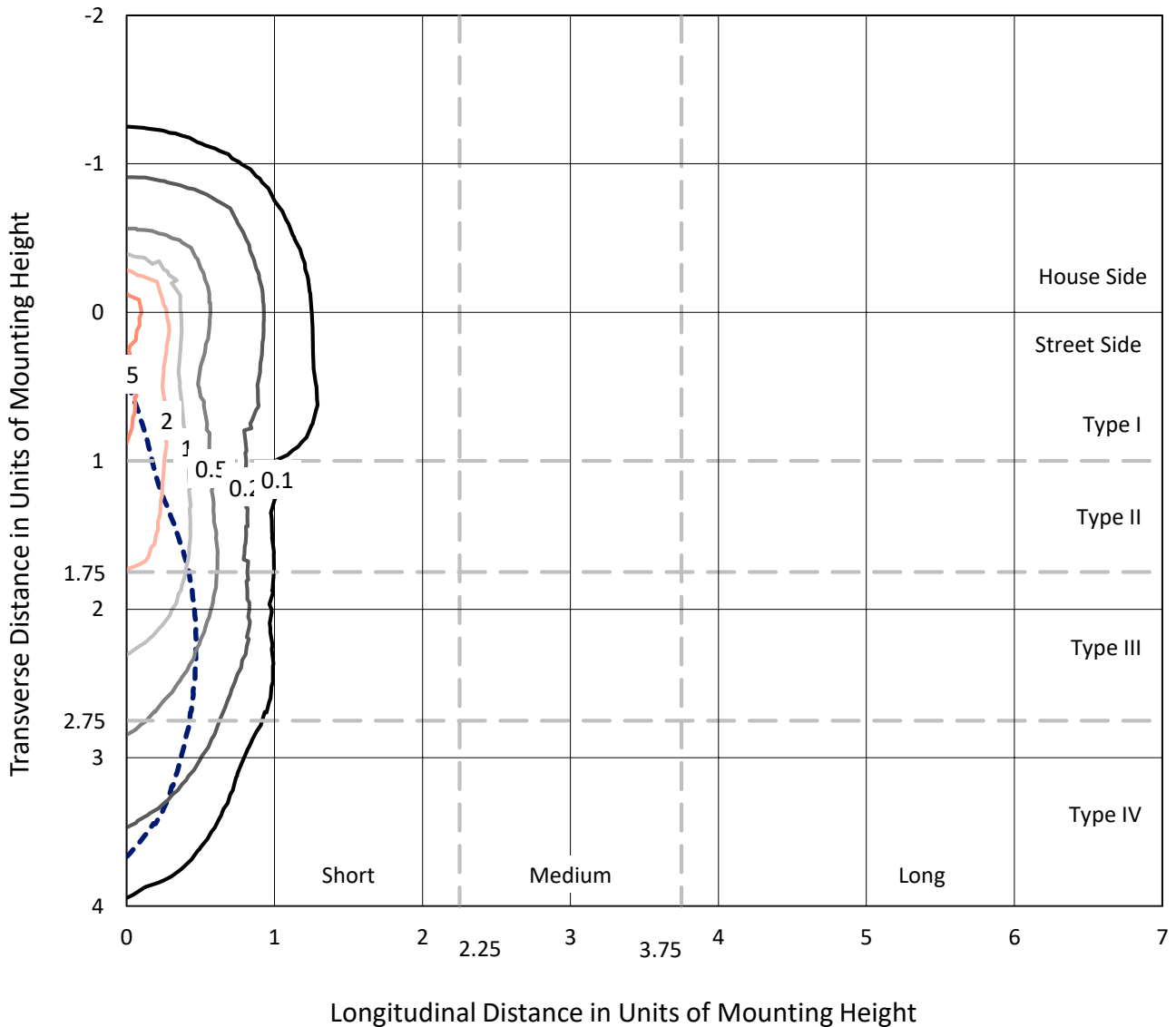


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

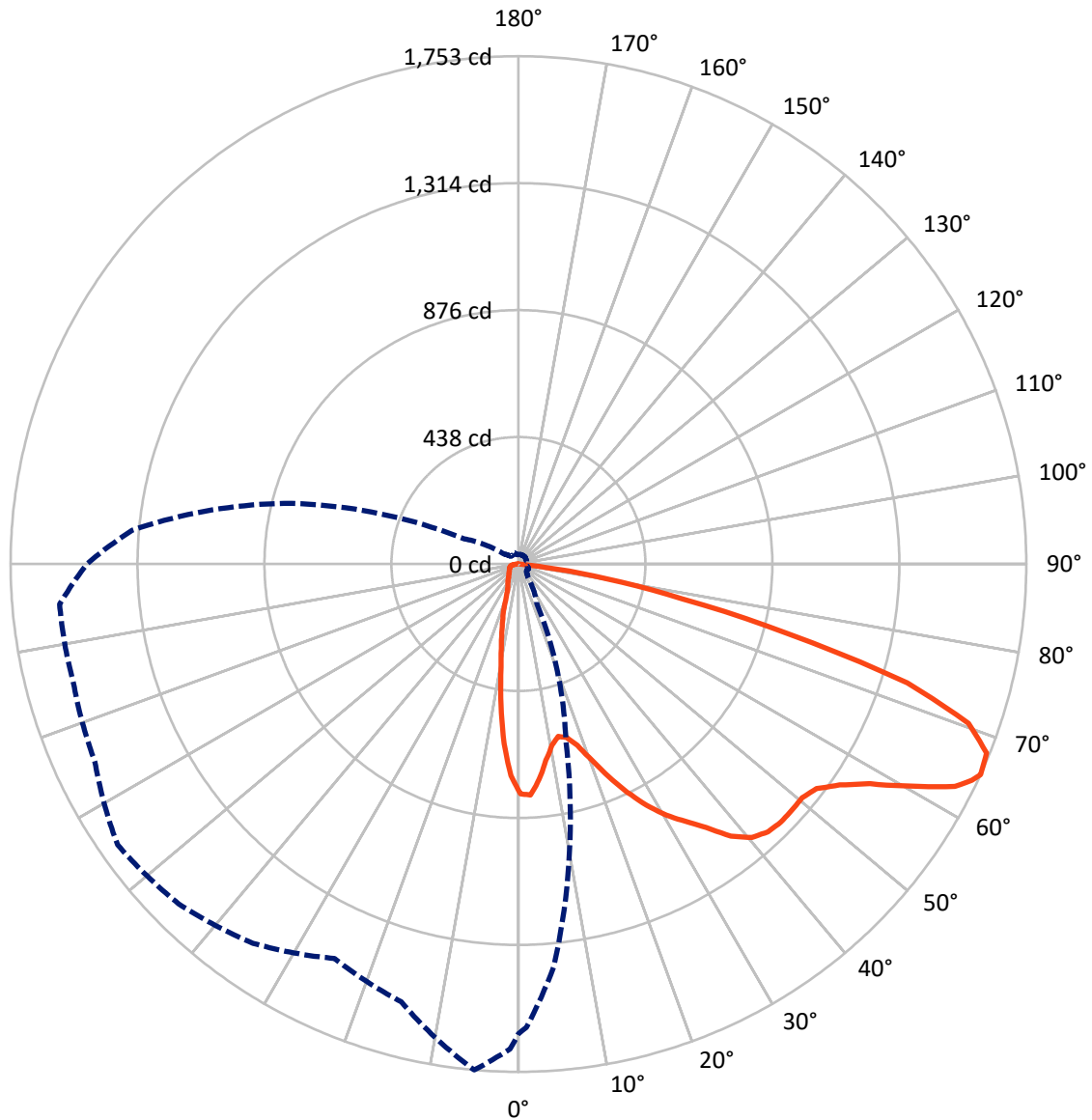


Based on 10 foot mounting height. Maximum calculated value = 7.9 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	457.1	0.0	457.1
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	1770.8	0.0	1770.8
	% Fixture	79.5	0.0	79.5
Total	Lumens	2228.0	0.0	2228.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.5	2.7
10°-20°	120.5	5.4
20°-30°	167.0	7.5
30°-40°	233.5	10.5
40°-50°	317.7	14.3
50°-60°	434.5	19.5
60°-70°	531.3	23.8
70°-80°	320.7	14.4
80°-90°	42.3	1.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	2228.0	100.0
0°-180°	2228.0	100.0



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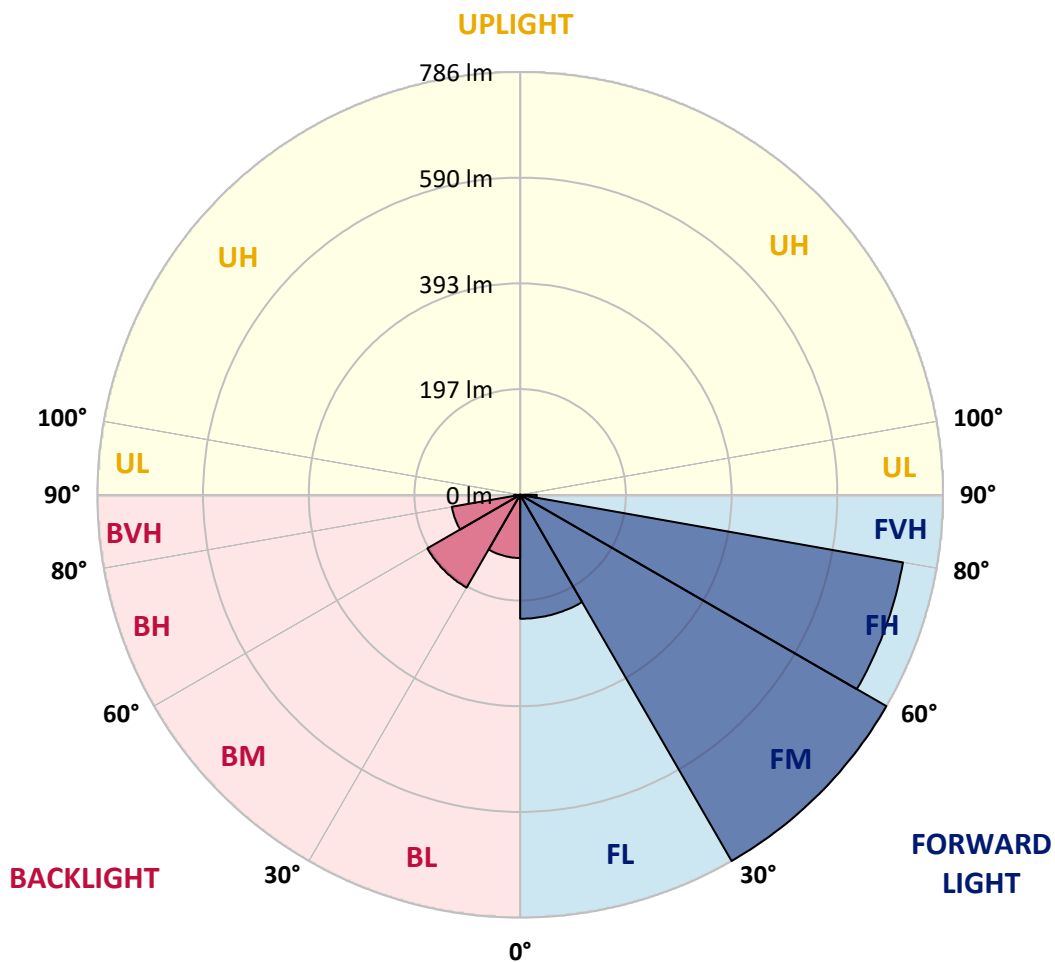
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	230.5	10.3			
FM	(30°-60°)	786.4	35.3			
FH	(60°-80°)	723.0	32.4			G1/1800
FVH	(80°-90°)	30.9	1.4			G1/100
BL	(0°-30°)	117.5	5.3	B1/500		
BM	(30°-60°)	199.3	8.9	B0/220		
BH	(60°-80°)	129.0	5.8	B1/500		G1/500
BVH	(80°-90°)	11.4	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8
2.5°	791.0	788.7	783.2	768.2	752.2	733.2	729.9	709.4	711.6	705.7	707.1
5°	722.4	719.4	704.2	674.4	633.7	610.3	592.0	581.2	572.3	567.8	573.4
7.5°	655.7	651.6	633.4	580.8	535.8	498.5	468.7	450.4	432.6	418.4	411.7
10°	601.7	600.2	576.0	516.8	460.1	414.7	395.3	375.9	360.7	340.5	324.1
12.5°	574.5	570.0	541.4	472.4	417.3	389.3	371.1	346.5	325.6	301.0	279.8
15°	575.6	570.4	534.6	462.4	402.4	368.5	340.5	311.1	280.5	255.6	234.0
17.5°	607.7	603.9	560.4	471.7	389.7	342.8	299.2	261.2	227.6	196.3	177.0
20°	661.7	656.1	595.7	482.9	373.7	313.3	254.1	201.9	165.8	138.2	122.9
22.5°	732.1	721.7	646.0	496.6	357.7	279.8	205.3	147.2	115.1	101.3	97.2
25°	807.4	799.2	706.8	514.2	340.5	243.3	152.0	106.9	95.8	90.2	87.2
27.5°	876.7	863.3	772.0	533.5	317.8	206.8	115.5	92.0	84.6	82.0	80.1
30°	926.2	914.7	817.1	555.9	298.1	168.8	98.7	83.5	77.5	73.4	72.7
32.5°	973.5	957.1	849.8	566.3	281.7	148.3	91.3	77.5	71.9	67.8	66.3
35°	1029.4	1013.0	887.5	567.8	269.4	139.7	84.2	73.0	67.1	63.3	61.5
37.5°	1095.4	1073.0	929.9	568.9	257.1	136.4	78.2	69.3	63.3	59.2	57.7
40°	1158.0	1140.8	973.5	567.1	248.9	131.5	74.5	65.2	59.6	55.9	54.0
42.5°	1205.3	1187.0	1010.8	561.5	244.0	123.3	76.0	62.2	57.0	52.9	50.7
45°	1229.5	1213.1	1044.7	556.3	241.4	116.2	74.5	61.1	55.1	50.3	48.1
47.5°	1247.8	1231.7	1079.3	554.0	237.0	111.0	68.6	65.2	53.3	47.7	45.5
50°	1277.2	1263.4	1126.3	566.7	229.9	107.7	63.0	69.7	52.5	45.5	42.8
52.5°	1330.1	1321.1	1203.8	596.1	222.4	102.1	57.4	66.7	53.3	44.0	41.0
55°	1428.8	1423.2	1310.3	634.9	215.3	95.0	51.4	60.4	52.9	41.4	39.1
57.5°	1535.4	1533.9	1439.6	668.8	204.9	83.1	47.7	51.0	50.3	39.1	36.5
60°	1606.9	1602.1	1499.2	687.8	191.5	68.6	44.7	43.2	51.4	36.9	33.9
62.5°	1631.5	1615.5	1481.4	680.7	171.4	59.2	41.4	39.5	47.7	34.6	31.3
64°	1630.0	1606.5	1434.8	653.9	158.3	57.4	39.5	36.9	42.1	33.2	30.2
65°	1621.4	1599.1	1396.0	633.0	151.3	57.4	38.4	35.8	38.4	32.4	29.4
67.5°	1566.7	1537.2	1263.8	536.1	133.0	58.1	35.8	32.8	32.0	29.8	27.6
70°	1441.9	1403.5	1082.3	421.8	123.3	58.5	32.8	29.8	28.7	27.2	25.3
72.5°	1158.0	1106.5	861.4	301.4	113.3	57.4	29.8	27.2	26.1	24.6	22.7
75°	776.4	720.2	634.9	198.6	92.8	51.4	25.7	23.5	23.1	21.6	20.1
77.5°	437.8	414.3	374.8	109.2	64.1	35.4	20.5	19.0	19.4	18.6	17.1
80°	228.8	218.0	200.4	52.9	30.9	17.1	13.0	13.0	14.9	14.9	14.2
82.5°	80.8	81.2	78.6	11.9	6.3	5.2	4.5	6.3	8.6	10.4	10.4
85°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.5	2.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8
2.5°	694.5	696.7	702.7	701.6	707.5	704.9	712.7	716.8	719.1	730.6	736.2
5°	568.9	569.7	590.9	595.4	606.6	600.6	614.4	609.2	620.3	621.8	640.5
7.5°	418.0	419.5	430.0	454.5	478.8	488.8	492.9	499.2	494.0	492.2	494.8
10°	317.8	318.9	320.0	337.6	358.8	380.0	380.0	380.4	371.1	361.8	359.9
12.5°	271.6	264.5	253.4	253.7	268.6	278.7	286.5	278.3	276.8	281.3	286.1
15°	223.5	216.5	209.0	200.1	200.4	207.5	211.6	211.2	218.7	222.1	232.1
17.5°	173.6	163.6	163.9	158.7	151.6	156.1	157.2	163.9	173.6	178.1	180.0
20°	116.6	116.6	119.6	125.9	122.6	125.6	125.9	131.1	135.6	133.0	135.6
22.5°	96.5	96.1	97.2	101.3	104.7	107.3	108.0	107.7	103.2	101.3	105.1
25°	87.6	87.2	87.6	89.8	93.5	96.9	95.4	93.1	87.9	87.6	88.3
27.5°	80.1	80.5	81.2	82.7	84.9	89.0	87.6	83.1	80.5	79.7	79.7
30°	73.8	73.8	75.3	76.8	79.4	83.1	80.5	76.8	74.1	73.4	73.0
32.5°	67.4	68.6	69.7	71.2	73.4	77.1	74.9	71.5	68.9	67.4	66.3
35°	61.1	61.8	64.1	66.3	68.2	71.2	69.7	66.7	64.1	60.7	59.2
37.5°	57.4	57.4	58.5	61.8	63.3	65.6	64.8	62.2	58.1	55.5	55.1
40°	54.0	54.0	54.4	56.3	58.9	61.5	60.0	55.9	53.3	52.2	51.8
42.5°	50.7	50.7	51.0	51.0	54.4	58.9	55.1	51.0	49.9	49.2	48.8
45°	47.7	47.7	47.7	47.3	49.2	54.8	50.7	47.3	46.6	46.6	46.2
47.5°	45.5	45.1	44.7	44.0	45.1	49.6	46.2	44.3	44.0	44.3	44.0
50°	42.5	42.1	41.7	41.4	42.1	44.0	43.2	41.4	41.7	41.7	42.1
52.5°	39.9	39.5	39.1	38.7	39.5	41.0	41.0	39.5	39.5	39.9	40.2
55°	38.4	37.6	37.3	37.3	37.6	39.5	39.1	38.0	38.0	38.7	39.1
57.5°	36.1	35.4	35.4	35.0	35.8	38.0	37.6	36.5	36.5	36.9	37.6
60°	33.9	33.5	33.2	33.9	34.3	36.5	36.1	35.4	35.0	36.1	36.1
62.5°	31.3	31.3	31.3	32.0	32.4	35.0	34.6	34.3	34.3	34.6	34.3
64°	29.8	29.8	30.2	30.6	31.3	33.5	33.5	33.5	33.5	33.5	33.2
65°	29.1	29.1	29.8	30.2	30.6	33.2	32.8	33.2	33.5	33.2	32.4
67.5°	27.2	27.2	28.3	28.3	28.7	31.7	31.3	32.0	32.8	32.0	31.3
70°	25.0	25.3	26.5	26.1	26.8	30.2	29.1	30.6	32.0	30.9	30.2
72.5°	22.7	23.1	24.6	23.8	24.2	28.3	26.8	28.3	30.6	29.8	29.1
75°	20.5	20.9	22.0	21.6	22.4	26.1	24.6	26.1	28.3	28.3	27.9
77.5°	17.5	18.3	19.0	18.6	20.1	23.5	22.0	23.1	25.0	26.5	25.7
80°	14.2	15.3	15.6	16.0	17.5	20.1	19.0	19.4	21.2	22.4	22.7
82.5°	9.7	11.5	12.3	12.7	14.9	15.6	16.0	15.6	16.8	18.3	17.1
85°	3.0	3.7	7.1	8.9	11.2	11.2	13.0	12.3	13.0	11.5	9.7
87.5°	0.0	0.0	0.0	2.6	6.7	6.7	9.3	8.6	8.9	6.7	6.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8
2.5°	737.3	743.7	757.8	774.2	783.2	802.5	814.4	827.1	839.8	842.4	846.5
5°	644.2	651.6	667.7	689.6	711.6	737.3	767.1	798.8	833.8	848.7	863.3
7.5°	501.9	503.3	526.1	565.9	585.3	621.8	664.3	713.1	767.1	795.1	824.9
10°	370.7	386.0	403.1	436.3	485.1	527.2	579.7	636.7	693.0	733.6	764.5
12.5°	291.4	310.7	339.0	375.6	412.4	452.3	513.0	574.1	643.4	679.9	718.0
15°	239.9	264.5	301.4	339.8	374.1	409.5	463.5	538.4	627.0	664.3	698.2
17.5°	190.0	217.2	256.7	296.9	337.9	381.1	443.7	536.5	644.6	687.8	722.8
20°	145.7	166.9	200.1	240.7	288.7	348.0	428.1	550.7	696.3	750.4	773.5
22.5°	108.0	120.3	146.4	188.9	245.5	318.6	412.4	570.8	760.4	823.8	841.3
25°	89.4	92.8	104.7	141.6	200.1	285.4	400.5	596.9	824.5	895.7	908.3
27.5°	80.5	82.3	87.9	101.7	156.5	258.2	384.9	627.0	891.9	966.8	965.7
30°	72.7	73.0	76.4	86.1	127.0	234.0	366.6	660.6	951.9	1017.9	1014.5
32.5°	65.6	65.6	70.0	77.5	108.4	212.0	344.6	684.8	1004.1	1059.6	1048.8
35°	59.2	60.4	64.5	71.9	96.1	187.4	324.1	693.7	1048.8	1109.9	1079.3
37.5°	54.8	56.3	60.4	67.4	85.7	169.1	307.4	704.2	1103.9	1170.6	1113.6
40°	51.8	52.9	56.6	62.6	77.5	153.9	289.1	711.2	1158.7	1235.5	1149.8
42.5°	48.8	49.9	53.7	59.2	73.8	136.0	271.6	715.3	1215.7	1291.7	1179.9
45°	46.2	47.7	51.4	56.6	74.1	120.0	257.1	713.9	1250.0	1332.3	1203.4
47.5°	44.3	45.8	49.9	56.6	71.9	110.7	244.8	708.6	1275.3	1358.8	1214.2
50°	42.5	44.0	48.8	62.6	68.2	108.0	235.5	707.9	1301.8	1364.0	1214.2
52.5°	40.6	43.2	49.2	63.0	62.6	106.9	228.0	727.6	1338.3	1372.9	1225.0
55°	39.5	41.7	50.7	58.1	54.8	103.2	223.5	754.8	1399.8	1422.1	1279.4
57.5°	38.0	39.9	49.9	54.4	48.8	94.6	219.8	780.9	1480.6	1513.4	1387.8
60°	36.1	38.4	48.4	46.6	44.3	80.5	217.6	802.5	1510.8	1572.3	1504.5
62.5°	34.3	36.9	52.9	40.6	41.0	67.1	213.5	823.4	1447.1	1558.1	1579.3
64°	33.2	35.8	49.2	38.0	39.1	61.1	209.4	824.5	1390.8	1524.6	1593.5
65°	32.4	34.6	45.8	36.5	37.6	59.6	205.7	808.9	1337.9	1488.8	1589.4
67.5°	31.3	32.8	35.4	33.9	35.0	57.0	180.3	739.9	1225.4	1396.8	1525.7
70°	29.8	30.9	31.3	30.9	32.8	55.1	152.4	641.9	1102.4	1300.3	1426.6
72.5°	28.3	28.3	28.3	27.9	30.2	52.5	137.1	518.6	952.7	1173.6	1303.3
75°	27.2	26.1	25.7	25.0	27.6	51.0	123.7	389.3	736.2	977.6	1092.0
77.5°	25.0	23.8	22.7	22.0	24.6	45.5	103.2	275.0	542.8	711.2	842.8
80°	21.6	20.9	19.4	18.3	20.5	35.8	78.2	169.9	397.2	480.2	552.9
82.5°	17.5	17.1	15.6	14.2	14.9	25.7	53.3	86.4	264.9	260.8	308.9
85°	10.8	13.4	11.5	9.3	10.1	14.9	21.6	27.6	81.2	48.8	75.6
87.5°	6.3	8.6	7.1	4.8	3.7	6.7	6.0	5.6	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8	792.8
2.5°	856.2	861.0	863.6	853.9	843.5	834.2	816.3	798.4	789.1	791.0
5°	891.2	899.4	901.6	887.5	858.0	827.9	784.3	746.6	723.9	722.4
7.5°	877.8	904.6	909.1	893.8	851.7	795.4	736.2	683.7	660.9	655.7
10°	830.1	871.1	884.5	879.3	838.3	773.8	701.9	635.2	612.5	601.7
12.5°	781.3	824.1	832.3	837.5	812.6	758.2	679.2	610.6	583.5	574.5
15°	749.2	778.7	780.9	785.8	780.5	750.7	689.6	620.7	587.9	575.6
17.5°	744.8	734.3	727.3	737.3	743.7	751.1	716.8	658.3	623.3	607.7
20°	745.5	713.1	693.0	692.2	719.4	760.8	772.0	721.7	676.2	661.7
22.5°	772.7	701.9	668.4	664.3	697.5	777.2	828.2	796.9	751.5	732.1
25°	813.3	695.2	650.9	652.0	685.2	788.0	876.3	872.2	832.3	807.4
27.5°	852.4	706.4	648.7	651.6	689.3	795.1	916.2	943.0	898.3	876.7
30°	883.7	731.4	655.4	658.0	701.9	804.8	935.9	1006.0	951.9	926.2
32.5°	910.9	754.8	665.4	667.3	722.0	818.5	954.5	1058.9	1004.1	973.5
35°	935.5	775.0	680.7	687.0	747.8	838.3	973.5	1116.2	1067.8	1029.4
37.5°	957.1	799.5	710.9	721.3	785.4	867.0	998.1	1191.9	1139.0	1095.4
40°	969.4	821.5	755.6	771.2	834.2	904.2	1029.4	1241.0	1207.1	1158.0
42.5°	978.8	851.7	827.5	855.8	909.8	939.3	1044.3	1263.0	1247.4	1205.3
45°	983.6	911.3	935.5	962.0	995.1	977.6	1036.1	1270.5	1265.6	1229.5
47.5°	1005.6	1001.1	1060.7	1097.2	1095.4	1035.4	1020.5	1269.7	1277.6	1247.8
50°	1050.3	1105.8	1189.3	1225.0	1211.2	1089.4	1017.5	1268.6	1301.4	1277.2
52.5°	1103.6	1210.5	1328.2	1343.1	1314.1	1144.2	1039.9	1288.0	1346.1	1330.1
55°	1173.6	1308.9	1437.4	1442.2	1401.3	1197.5	1087.5	1345.0	1429.6	1428.8
57.5°	1271.2	1397.2	1529.0	1523.1	1465.3	1271.2	1164.3	1430.3	1522.3	1535.4
60°	1377.4	1490.3	1603.2	1599.8	1538.4	1356.2	1269.7	1556.6	1603.6	1606.9
62.5°	1479.1	1576.7	1674.7	1658.7	1589.4	1444.1	1415.8	1690.7	1656.5	1631.5
64°	1545.4	1605.8	1693.0	1667.6	1601.7	1486.2	1500.0	1734.3	1671.4	1630.0
65°	1589.4	1612.9	1688.9	1658.3	1597.6	1501.8	1563.7	1752.6	1674.0	1621.4
67.5°	1668.4	1572.3	1577.9	1553.6	1499.2	1487.3	1668.0	1742.5	1645.3	1566.7
70°	1646.4	1408.7	1332.0	1316.7	1251.5	1318.5	1655.0	1647.9	1537.6	1441.9
72.5°	1458.6	1131.1	1020.9	1007.1	916.5	999.2	1428.1	1403.5	1237.3	1158.0
75°	1201.9	857.3	729.1	740.7	671.8	748.1	1136.0	961.6	823.8	776.4
77.5°	932.9	605.8	503.7	489.9	476.1	484.3	780.9	577.5	481.4	437.8
80°	594.6	380.8	377.8	345.4	334.2	281.7	401.3	307.4	241.8	228.8
82.5°	315.9	219.4	249.3	199.7	160.6	115.5	136.0	91.3	77.1	80.8
85°	86.4	45.5	12.7	0.0	0.0	0.0	0.0	0.4	0.4	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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